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CENTRAL INTELLIGENCE AGENCY

## INFORMATION REPORT

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THIS IS UNEVALUATED INFORMATION

1. In May 1954, invitations were extended by the Soviet Academy of Sciences to a group of Western astronomers to attend the rededication of the Pulkhovo Observatory near Leningrad. This institution, which prior to World War II was the center of an outstanding school of astronomical observers and a long established observatory, was almost totally destroyed during the World War II fighting near Leningrad. Among those invited to the rededication were:

Sir Harold Spencer Jones. [redacted]  
 Jan Hendrik Oort from [redacted] University Observatory,  
 [redacted]  
 Andre Louis Danjon, Director [redacted]  
 Observatory.  
 Bertil Lindblad, Director [redacted]  
 Observatory.  
 Paul Bourgeois from the Royal [redacted]  
 Observatory.

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Not all of these invitees attended.

the [redacted] invitations were directed to foreign scientists [redacted] or those of foreign extraction. [redacted] Apparently, all

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[redacted] This, [redacted] was an intentional indirect slap, as there are outstanding astronomers.

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2. The Soviet sponsorship began when the visiting astronomy boarded their plane [redacted] The Soviets apparently extended themselves to provide a pleasant visit. Luggage was not searched. In the intervals between meetings, visiting astronomers were allowed to walk about the environs and even take photographs.

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The places visited were Leningrad, Pulkhovo, and Moscow for a Congress the end of May 1954. In at least one of their invitations, the Soviets offered the opportunity to visit various astronomical establishments throughout the USSR.

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3. At least some of the Western astronomers were surprised that Pulkhovo Observatory has been rebuilt in the old style. In the past, the Russians and early Soviets have favored big, ornamental observatory buildings with many domes. Architecturally, Pulkhovo has been rebuilt in this general style, reminiscent of as far back as 1840. New developments in astronomical structures have not been incorporated. For example, slots are again (as in the destroyed observatory) provided in the main building for the taking of transit measurements of the position of stars. It has now for some time been known that this arrangement is not good, as very localized movements of air, etc, produce errors. The modern practice is for each of the meridian circles to be in a separate building. This failure to provide up-to-date physical facilities is all the more surprising for two reasons. One, the Pulkhovo Observatory has long been known for its work in the precise measurement of star locations, so one might say there is a vested interest in continued excellence in this special field. And two, the Soviets have reconstructed the transit telescope from Babelsberg Observatory, dismantled and shipped from the University of Berlin after World War II, at Pulkhovo as a separate building (as it was designed and built [redacted] so clearly an example of the best method was not lacking. When one visiting Western astronomer expressed his bewilderment at the observatory construction, one Pulkhovo astronomer remarked: [redacted] astronomers did not have 'full say' on how the observatory was rebuilt."
4. Another Western scientist, with a keen observing eye, noted that the plaster in the Pulkhovo observatory building would be falling down in several years, and was in fact cracking at the time of its dedication. Reportedly, the building was constructed by women brigades, and the plaster was applied in freezing weather without proper environmental control.
5. The observatory telescopes and other instruments are the old standard type, nothing new or even strictly modern. The large reflector (like the [redacted] Observatory reflector) which existed at Poulkovo before World War II, has not been rebuilt.
6. A number of Germans from the East Zone of Germany have been to the USSR during the past year or so [mid-1953 to mid-1954]. In extending these invitations and in the conduct of the visits, the Soviets have put their best foot forward and have apparently attempted no political pressure or questioning.
7. They indicate that Soviet astronomy is organized under the supreme authority of the Astronomical Council of the Soviet Academy of Sciences. Aleksandr Mikhailov, the old Bolshevik and Director of the Pulkhovo Observatory is Chairman of this council. (Incidentally, Mikhailov's son was at one of the astronomical meetings [redacted] some time ago, [redacted] The Astronomical Council controls all astronomical activities in the USSR, whether attached to universities or not. The field of astronomy as a whole is divided into main divisions or departments, including: Astrometry (measurement of star positions); Variable Stars; Sun; and the Constitution of Stars. The Council controls all journals concerned with astronomy, geodesy, and astrophysics. It also controls and directs all scientific meetings.
8. An East Zone German astronomer has reported that representatives of allied scientific fields are always present at astronomical meetings in the USSR. In fact, this representation is required, even if there is no interest in attending. A current [mid-1954] scientific "crime" is failure to advise a

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related field of information or research principally applicable to another particular discipline but also pertaining to the related field. The editors of scientific journals especially are in "real hot water" if they slip in this attention-calling function. This is a significant development, as it would appear to indicate a keen awareness on the part of the Soviets of interdisciplinary scientific ties, and an operational pressure to achieve the closest possible interrelationship between fields.

9. It is also reported that the Soviets have developed their abstracting bureaus, started some 10-12 years ago [c. 1942-1944], to a very high level. These bureaus classify and abstract everything coming in to the USSR from all over the world, as well as Soviet internal work. They are reported to be the biggest operation of this type in the world. They utilize a simple reference system, which is understandable to students at the high school level. Any Soviet can write to these bureaus and receive excellent reference and abstract information. The bureaus are apparently organized by major scientific fields, but with great emphasis on multiple-correlations [ie, cross disciplinary reference]. Punched cards are used, with the latest techniques. The Soviets have long been expert at tapping the research and knowledge of the rest of the world. These developments suggest a high order of operational perfection and useful reference information, which can undoubtedly be considered an important feature of Soviet science in general, contributing to its potential.
10. The Astrophysical Observatory of the Crimea is directly under the Soviet Academy of Sciences, rather than the academy of the republic. The big 55-inch, double-astrographic reflector from the Babelsberg Observatory in Berlin is at this Crimean observatory, which is reportedly now being built up into a greater center. The best Soviet astrophysicists are located there now [mid-1954].
11. The University of Moscow has long had a very strong Department of Astronomy, but until now has had limited instrument facilities. It is reported that this department is the next to be expanded and built up.
12. The Soviets want a 40-inch Schmidt telescope for the Bjurakan Observatory in Armenia. This, incidentally, is where V A Ambartsunyan, the outstanding astronomer in the USSR, is located.
13. The Soviets very recently (mid-1954) produced a second astronomical atlas. Together with the atlas issued at the Seventh General Assembly of the International Astronomical Union (IAU) [redacted] the Milky Way and Emission Nebulae of our galaxy are covered. Their most recent atlas was photographed at the Alma Ata Mountain Station in Outer Mongolia (Kazakhstan). The quality of the photographs in both atlases is definitely inferior to comparable [redacted] work.
14. The fact that Soviet astronomy has few new instruments is interesting. There appears to be some real difficulty in getting the equipment the Soviet astronomers would like. And this despite the fact that at least in the numbers of people involved, the Soviet astronomical effort is several times that of the US. In my opinion, this difficulty in astronomy is probably reflective of a more general difficulty of producing as much high-class equipment as is needed and wanted in the sciences (with the obvious probable exception of such high-priority military efforts as the hydrogen bomb, etc). Certainly, it was Lenin's philosophy not to skip the basic sciences.
15. One young [redacted] astronomer who speaks Russian fluently and has visited in the USSR within the past year [mid-1953 to mid-1954], has reported that the Soviet astronomers are getting a "kick in the pants" for too few articles on dialectic materialism--Soviet dogma. Apparently, they are complimented for good scientific publication in astronomy, but complaints are being registered that not enough articles expound Soviet philosophy and dogma.

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